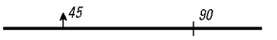
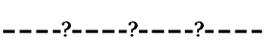
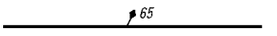
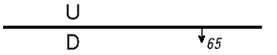
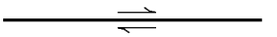
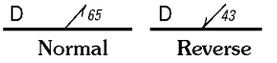
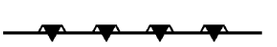
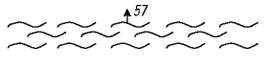
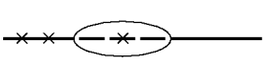
FAULTS

Same line conventions used for faults as for contacts; preferred phrasing when several line conventions are used for faults and combined in the explanation: *Long-dashed where approximately located; short-dashed where inferred; dotted where concealed; queried where doubtful.*

U, upthrown side; D, downthrown side. Generally make fault line weights .015 in.; relative importance of faults may be shown by width of line and suitable explanation. Dip shown where observed or known.

Fault		Weight of line may vary with density of map
Fault, showing dip		
Fault, approximately located		Not surely located within 1/50 in. at scale of map
Inferred fault		Evidence for fault only indirect
Probable or doubtful fault		Use probable or doubtful, not both. Queries spaced three or more dashes apart, indicate uncertainty of existence, not location. Probable is more definite than doubtful
Concealed fault		Must be concealed by overlying mapped deposits or water
Hypothetical fault		Existence from indirect geologic evidence, could be explained by causes other than faulting
Fault, located by ground magnetic survey		
Fault, located by airborne magnetic survey		
Fault or lineament from aerial photographs *Not checked or not identified on ground*		
Lineament		Used on small-scale tectonic maps. Add lineament name where possible. Make line weight .010 in.
Fault *Showing bearing and plunge of grooves, striations, or slickensides*		Plunge measured in vertical plane. Identify type of evidence observed in italic statement
Fault, showing dip U, *upthrown side*; D, *downthrown side*		High angle, used in combination with dip arrow to indicate apparent normal or reverse movement
Fault *Bar and ball on downthrown side*		Generally used where space does not allow U and D symbols without confusion
Fault, showing relative horizontal movement		
Fault *Showing bearing and plunge of apparently downthrown block*		Where displacement is given in feet, vertical numbers should be used
Normal fault *Hachures on apparently downthrown side*		Use on tectonic maps, or, where space does not permit use of U and D
Reverse fault R, *upthrown side*		Angle of dip originally greater than 45° but precise value indeterminate. Hanging wall believed to have moved upward in respect to footwall
Thrust fault T, *upper plate*		Angle of dip originally less than 45° Dip of fault, where known, shown by barbed arrow
Thrust fault *Sawteeth on upper plate*		Symbol emphasizes fault; arrangement of teeth may separate thrust faulting of different ages. May be limited to major thrust faults
Overturned thrust fault *Sawteeth in direction of dip; bar on side of tectonically higher plate*		
Fault (shear or mylonite) zone, showing dip		Show relative movement by U and D or arrows. Make line weights .006 in.
Fault breccia		Extent may be outlined by faults or shown only where observed. Used as overprint for broad areas or fault breccia. Make line weight .006 in.
Fault, intruded by dike		Use on small scale black and white map or for narrow dike. On colored maps show dike in color and fault movement by U and D
Fault, intruded by dike		Use on large scale black and white map for dike of sufficient width to be mapped. Former location of fault shown. Dikes usually shown in color